

Appl. No. 09/909,486
Amdt. Dated Mar. 12, 2004
Reply to Office Action of Dec. 12, 2003

REMARKS

Claims 1-20 are pending in the present application and stand rejected.

REJECTIONS UNDER 35 USC § 103(a)

Applicants respectfully submit that the Office has failed to make a *prima facie* case for the obviousness rejections presented below. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. See *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992); MPEP § 2143.01. Second, there must be a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991); MPEP § 2143.02. Third, the prior art reference or combined references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981 (CCPA 1974); MPEP § 2143.03. Furthermore, in establishing a *prima facie* of obviousness, case law clearly places the "burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103." *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967). Applicants traverse each rejection.

Claims 1, 4, and 6 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,873,868 to Nakahata et al. (hereafter "Nakahata") in view of U.S. Patent No. 6,452,063 to Curro et al. (hereafter "Curro"). In support of this rejection, the Office states that Nakahata discloses a disposable absorbent article. The Office states that Nakahata discloses a nonwoven web comprising a plurality of apertures each having a hole size greater than 2 mm². The Office asserts that "[f]igure 4 in Nakahata appears to teach the web having an open area greater than 15%." The Office states that "Nakahata further discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction." The Office concedes that Nakahata fails to disclose a hole aspect ratio of less than 6. The Office states that Curro teaches an apertured topsheet with an aspect ratio between 1.5:1 and 5:1. The Office concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in Nakahata as taught by Curro in order to provide the benefit of retaining more open area when the web is extended." Applicants traverse this rejection.

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Nakahata discloses an absorbent article including a liquid pervious topsheet that is elastically extensible and includes a plurality of slits or cuts that extend through the topsheet material; the slits or cuts enlarge to define a plurality of openings in the topsheet when the article is subjected to tensile forces while worn. *See Abstract*. However, Nakahata, examined individually, fails to disclose all of the limitations presented in Applicants' Claim 1.

First, Nakahata fails to teach or suggest an open area greater than 15%. In view of Nakahata's Fig. 4, the Office states that Nakahata "appears to teach" Applicants' claim limitation of a nonwoven web having an open area greater than 15%. Nakahata provides no disclosure of open area within the specification. Recent case law states, "[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue." *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed. Cir. 2000). The Office is relying on the drawings of Nakahata to show a "particular size" (i.e., open area of greater than 15%) while the specification of Nakahata is silent as to the open area. In light of the holding of the Federal Circuit, the Office may not read a precise proportion from the drawings. Thus, Nakahata fails to teach the limitation of an open area greater than 15%.

Second, Nakahata fails to teach or suggest a nonwoven web capable of at least 70% extension at a loading of 10 g/cm. The Office states that "Nakahata further discloses that the top sheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction, which reads on Applicants' limitation being capable of at least 70% extension in the cross machine direction at a loading or (sic) 10g/cm." However, Nakahata fails teach or suggest a nonwoven web that is capable of at least 70% extension *at a loading of 10 g/cm*. In light of the previous Office Action dated Oct. 1, 2003, the Office continues to assert that a reference disclosing a web having a range of elongation (i.e., the Gilmore reference cited in the previous Office Action) or extensibility (i.e., Nakahata) greater than 70% obviates Applicants' Claim 1. The limitation of "at a loading of 10 g/cm" continues to be read out of Applicants' Claim 1 by the Office. The Office has twice cited references that fail to teach or suggest this high-elongation at low loadings. Applicants again submit that Claim 1 is nonobvious as presented in light of the references cited by the Office.

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Curro discloses a porous, macroscopically-expanded, three-dimensional elastomeric web suitable for use in disposable absorbent articles. *See Abstract*. Curro discloses, in one of its preferred embodiments, that the primary apertures have an aspect ratio of greater than about 1.5:1 or any ratio greater than 1:1. Col. 11, lines 3-13. Curro states that "the elastomeric web of the present invention preferably comprises a formed film having at least two polymeric layers, with at least one layer being an elastomer and at least one layer being a substantially less elastomeric skin layer." Col. 3, lines 45-49. Curro defines elastomer as "any material which is capable of being formed into a film layer and which exhibits elastomeric properties." Col. 8, lines 35-37. Curro defines skin layer as "a layer of any semi-crystalline or amorphous polymer that is less elastic than the elastomeric layer . . . preferably thinner and substantially less elastic than the elastomeric layer." Col. 8, lines 49-53. Curro discloses that the elastomeric web may be "further processed to form a composite laminate by bonding it on one, or preferably both sides thereof, with fibrous nonwoven materials." Col. 15, lines 10-13. However, Curro, examined individually, fails to disclose all of the limitations presented in Applicants' Claim 1.

First, Curro fails to teach or suggest a nonwoven web comprising a plurality of apertures. Curro discloses an apertured elastomeric web, but Curro does not teach or suggest that its elastomeric web is a nonwoven. Curro does disclose the use of a nonwoven; however, the nonwoven is used as a cover over the elastomeric web so as to provide a soft composite laminate. Curro does not teach or suggest that the nonwoven is apertured.

Second, Curro fails to teach or suggest a nonwoven web capable of at least 70% extension at a loading of 10 g/cm. The Office does not rely on Curro to teach or suggest extensibility. Applicants submit that nothing within Curro teaches or suggests a 70% extension at a loading of 10 g/cm.

With regard to the hypothetical combination of Nakahata and Curro, Applicants submit that there is no suggestion or motivation to combine the reference. Assuming *arguendo*, a hypothetical combination of the two references may yield a variety of apertured substrates. Further assuming *arguendo*, one of the substrates may be a nonwoven topsheet of Nakahata with the aspect ratio of Curro as suggested by the Office. However, in order to reach the hypothetical combination asserted by the Office, one must disregard well settled case law pertaining to the suggestion or motivation for combining references. Furthermore, Applicants submit that the

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hypothetical combination asserted by the Office still fails to teach or suggest all of Applicants' claim limitations.

First, case law states that "[i]t is improper to combine references where the reference teach away from their combination." *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983); MPEP § 2145. Curro discloses a three-dimensional elastomeric web and, by way of contrast, defines the term "planar." Curro provides that the term planar "refers to the overall general condition of the web, ribbon, or film when viewed by the naked eye on a macroscopic scale . . . [t]hus, for an apertured, planar web the edge of the material at the apertures is substantially in the plane of the web." Nakahata discloses that its topsheet may be a nonwoven web. Clearly, Curro teaches that its elastomeric web must be three-dimensional and not a planar web such as the web disclosed in Nakahata. As a result, Curro teaches away from the Office's proposed combination of Curro and Nakahata.

Second, it is well settled that the Office cannot pick and choose among individual elements of assorted prior art references to recreate the claimed invention based on the hindsight of Applicants' application. *See In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992). In order to obviate Applicants' claimed invention, the combination must yield an apertured nonwoven. Nakahata discloses a topsheet, which may be a nonwoven, with a plurality of discontinuities. Col. 5, line 45. Curro discloses an apertured elastomeric web preferably comprising a formed film having at least two polymeric layers, an elastomer layer and a skin layer. Col. 3, lines 45-49. Curro teaches that the primary apertures have an aspect ratio of greater than about 1.5:1 or any ratio greater than 1:1. Col. 11, lines 3-13. Curro discloses the use of a nonwoven; however, the nonwoven is used as a cover over the elastomeric web so as to provide a soft composite laminate. Col. 15, lines 4-52. Curro does not teach or suggest that the nonwoven is apertured. Applicants submit that the Office has merely selected "aspect ratio" from Curro for insertion into Nakahata without appreciating the distinctions between the two references. One of ordinary skill in the art would not merely select "aspect ratio" from a disclosure on a porous, macroscopically-expanded, three-dimensional, elastomeric web and insert the "aspect ratio" into a disclosure of absorbent article including a liquid pervious topsheet that includes a plurality of slits or cuts that enlarge to define a plurality of openings in the topsheet when the article is subjected to tensile forces while

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worn. The Office's hypothetical combination is a product of such prohibited "picking and choosing".

Third, case law states that if a proposed modification would render the prior art invention unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Nakahata discloses a topsheet with a "plurality of discontinuities in the form of slits, cuts, or perforations." Col. 10, lines 57-58. The discontinuities permit apertures to open when tensile forces are applied during wear and close when the tensile forces are removed. Col. 10, lines 35-44. Conversely, Curro discloses a porous, macroscopically expanded, three-dimension, apertured elastomeric web. Curro discloses that the apertures are present when the web is strained or relaxed. Col. 12, lines 15-37 and Figs. 8A-8C. Combining Nakahata and Curro necessarily yields an apertured web that renders the prior art invention unsatisfactory for its intended purpose. If the web has apertures present when the web is strained or relaxed as taught by Curro, the benefit of the article disclosed in Nakahata is destroyed since the slits will no longer be open and closeable apertures. Likewise, if the web has apertures present only upon application of force as taught by Nakahata, the benefit of the article disclosed in Curro is destroyed since the apertures will not remain open while the web is relaxed. The Office may not combine these reference since the combination destroys the intended purpose of the reference article.

Applicants submit that the hypothetical combination asserted by the Office still fails to teach or suggest all of Applicants' claim limitations. As presented above, Nakahata and Curro individually fail to teach or suggest Applicants' claim limitation that the nonwoven web is "capable of at least 70% extension in the cross machine direction at a loading of 10 g/cm." Likewise, there is nothing within the hypothetical combination of Nakahata and Curro that teaches or suggests Applicants' claim limitation. As a result, Claim 1 and all claims dependent therefrom are nonobvious as presented.

In summary, the Office has failed to make a *prima facie* case regarding Claims 1. Since independent Claim 1 is nonobvious in light of the reasoning above, Claims 4 and 6 dependent therefrom are also nonobvious. *In re Fine*, 837 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

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Claims 7-10 stand rejected under 35 USC § 103(a) as being unpatentable over Nakahata in view of U.S. Patent No. 4,588,630 to Shimalla (hereafter "Shimalla"). In support of this rejection, the Office substantially repeats its discussion as to the teachings of Nakahata which are presented above. The Office concedes that "Nakahata fails to disclose that the apertures coincident with a plurality of weakened, melt-stabilized locations and a portion of the circumferential edge of the aperture is defined by a remnant of the melt-stabilized location." The Office concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to use the material and melt-stabilized holes of Shimalla as the materials and holes of Nakahata in order to increase tensile strength of Shimalla." Applicants traverse this rejection.

The Office states that Shimalla teaches "a nonwoven web comprising a plurality of apertures with circumferential edge, a portion of the circumferential edge being defined by a melt stabilized location." The Office states that the nonwoven web of Shimalla has "a basis weight of about 0.8 to about 4 ounces per square yard . . . which reads on Applicant's claimed range." Shimalla discloses an apertured nonwoven fabric wherein each aperture is surrounded by a perimeter of fused thermoplastic material. Col. 2, lines 37-53. Shimalla discloses that a fibrous web is subjected to a combination of heat and pressure at an embossing nip to create fused regions in the web. Col. 3, lines 63 – Col. 4, line 10. Apertures are formed in the fused region by stretching the web either in the machine or cross direction. Col. 4, lines 16-47.

Shimalla, examined individually, fails to disclose all of the limitations presented in Applicants' Claim 7. In particular, Shimalla does not teach or suggest an apertured nonwoven web capable of at least 70% extension at a loading of 10 g/cm. Shimalla does disclose that the fabric can be stretched up to 50% in the cross-direction by passing the fabric over a bow roll. Col. 4, lines 36-47. First, Applicants' 70% extension does not read on Shimalla's 50% draft. Second, Shimalla does not teach or disclose the loading required to achieve 50% draft. Third, Applicants claim an apertured nonwoven web capable of at least 70% extension at a loading of 10 g/cm whereas Shimalla discloses a fabric stretched to form apertures. The extension capability of the apertured web of Shimalla is never disclosed or suggested.

Assuming *arguendo*, the hypothetical combination of Nakahata and Shimalla would yield the nonwoven topsheet of Nakahata having the apertures of Shimalla surrounded by a perimeter

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of fused thermoplastic material. Given that Shimalla discloses open apertures and not slits that can be opened and closed, the apertures of the hypothetical combination will be open. The Office has failed to make a *prima facie* case for obviousness relative to claims 7-10 for at least two reasons.

First, case law states that if a proposed modification would render the prior art invention unsatisfactory for its intended purpose, there is no suggestion or motivation to make the proposed modification. *See In re Gordon*, 733 F.2d 900. The Office asserts Nakahata and Shimalla would disclose Applicants' nonwoven web as provided in Claim 7. However, Shimalla and Nakahata may not be combined because to do so would render Nakahata unsatisfactory for its intended purpose. As presented above, the hypothetical combination of Nakahata and Shimalla yields a nonwoven apertured topsheet wherein the apertures remain open since they are surrounded by a perimeter of fused thermoplastic material. This combination destroys the benefit of the article disclosed in Nakahata. The article of Nakahata would no longer have slits that open to form apertures upon application of a force and close upon removal of a force. The Office may not combine these references since the combination destroys the intended purpose of the reference article, Nakahata.

Second, Nakahata and Shimalla, individually or in combination, fail to teach or suggest all the claim limitation. Regarding Claim 7, Nakahata and Shimalla, individually or in combination, fail to teach or suggest Applicants' claim limitation that the nonwoven web is "capable of at least 70% extension in the cross machine direction at a loading of 10 g/cm." Nakahata discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction. Shimalla does disclose that the fabric can be stretched up to 50% in the cross-direction by passing the fabric over a bow roll; however, Shimalla provides no teaching as to extensibility of the resultant apertured web. Neither Shimalla nor Nakahata teach or suggest that a nonwoven web is capable of at least 70% extension *at a loading of 10 g/c*. As discussed more fully above, the Office has twice read the limitation of "at a loading of 10 g/cm" out of Applicants' claim 7. The Office has twice cited references that fail to teach or suggest this high-elongation at low loadings. Applicants again submit that Claim 7 is nonobvious as presented.

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Regarding claim 8, Nakahata and Shimalla, alone or in combination, fail to teach or suggest Applicants' claim limitation that the "nonwoven web has an open area greater than 15%." Shimalla does not teach or suggest the open area of its apertured nonwoven. As discussed above, the Office may not rely on the drawings of Nakahata to show a "particular size" (i.e., open area of greater than 15%) while the specification of Nakahata is silent as to the open area.

In summary, the Office has failed to make a *prima facie* case regarding Claims 7 and 8. Since independent Claim 7 is nonobvious in light of the reasoning above, Claims 8-10 dependent therefrom are also nonobvious. *In re Fine*, 837 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Claims 1-4 and 6 stand rejected under 35 USC § 103(a) as being unpatentable over Nakahata in view of Shimalla in further view of Curro. In support of this rejection, the Office states that "it would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in the combination of Nakahata and Shimalla as taught by Curro in order to provide the benefit of retaining more open area when the web is extended." The Office's citations from the references are presented above as well as Applicants' summary of the references. Applicants traverse this rejection.

Assuming *arguendo*, the hypothetical combination may yield a substrate which may be a nonwoven topsheet of Nakahata having the apertures of Shimalla surrounded by a perimeter of fused thermoplastic material with the aspect ratio of Curro. However, in order to reach the hypothetical combination asserted by the Office, one must disregard well settled case law pertaining to the suggestion or motivation to combine references. Furthermore, the hypothetical combination fails to each all of Applicants' claim limitations.

As previously presented above, the Office has failed to provide a suggestion or motivation for combining (i) Nakahata and Curro and (ii) Nakahata and Shimalla. With regard to the combination of Nakahata and Curro, the following errors in establishing a *prima facie* case of obviousness have been noted: (1) Curro teaches away from the use of a planar web, (2) the proposed combination would render Nakahata unsatisfactory for its intended purpose, and (3) the Office improperly "picks and chooses" among individual elements of the prior art references to recreate the claimed invention based on the hindsight. With regard to the combination of

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Nakahata and Shimalla, the Office failed to consider that the proposed combination would render Nakahata unsatisfactory for its intended purpose. With regard to the combination of all three references, all of the listed failures are applicable. Thus, the Office has failed to provide a motivation or suggestion for combining the references.

Nakahata, Curro, and Shimalla, alone or in combination, fail to teach each and every limitation as presented in Applicants' claims. With regard to Claim 1, the references fail to teach or suggest at least two of the limitations. First, the references, alone or in combination, fail to teach or suggest Applicants' claim limitation that the nonwoven web is "capable of at least 70% extension in the cross machine direction at a loading of 10 g/cm." Second, the references, alone or in combination, fail to teach or suggest Applicants' claim limitation that the "nonwoven web has an open area greater than 15%." Discussion of each of the failures has been previously presented.

In summary, the Office has failed to make a *prima facie* case regarding Claim 1. Since independent Claim 1 is nonobvious in light of the reasoning above, Claims 2-4 and 6 dependent therefrom are also nonobvious. *In re Fine*, 837 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Claim 5 stands rejected under 35 USC § 103(a) as being unpatentable over Nakahata in view of Curro in further view of U.S. Patent No. 5,628,097 to Benson et al (hereafter "Benson"). The Office concedes that Nakahata and Curro fail to disclose the meltblown fibers include meltblown microfibers. The Office states that Benson teaches a nonwoven web comprising meltblown microfibers. The Office concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to use meltblown microfibers as the meltblown fibers in Nakahata as taught by Benson." Applicants traverse this rejection.

Benson discloses a method for selectively aperturing a nonwoven web. Benson teaches that meltblown microfibers may be used to create the apertured web. However, Benson, examined individually, fails to disclose all of the limitations presented in Applicants' Claim 1. Benson provides no teaching or suggestion of apertures with a hole aspect ratio less than 6, of a web with an open area of greater than 15%, or of a web capable of at least 70% extension in the cross machine direction at a loading of 70 g/cm.

Assuming *arguendo*, the hypothetical combination may yield a substrate which may be a nonwoven topsheet of Nakahata made from the meltblown microfibers of Benson with apertures

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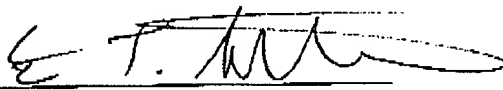
having the aspect ratio of Curro. However, in order to reach the hypothetical combination asserted by the Office, one must disregard well settled case law pertaining to the suggestion or motivation to combine references. Furthermore, the hypothetical combination fails to each all of Applicants' claim limitations. Applicants respectfully submit that the Office has failed to make a *prima facie* case for obviousness relative to Claim 5. The Office has failed (1) to provide a motivation or suggestion to combine Nakahata and Curro and (2) to teach every element of Applicants' claim (i.e., Claim 5 is dependent from Claim 1 and contains all limitations therein). Ample discussion and support for these failures has been previously presented.

CONCLUSION

Based on the foregoing reasons, Applicants respectfully submit that the Office has failed to make a *prima facie* case for the §103 rejections, and, therefore, the rejections are improper. Reconsideration and withdrawal of the rejections are respectfully requested. Applicants respectfully request allowance of each of the pending claims in the next Office Action.

Respectfully Submitted,

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